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(71) Applicant (for all designated States except US):
SUNGKYUNKWAN UNIVERSITY Foundation
for Corporate Collaboration Provost [KR/KR]; 53
Myeongnyun-dong 3-ga, Jongno-gu, Seoul 100-745 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LEE, Doo-Sung**
[KR/KR]; Sungkyunkwan University, Cheoncheon-dong,

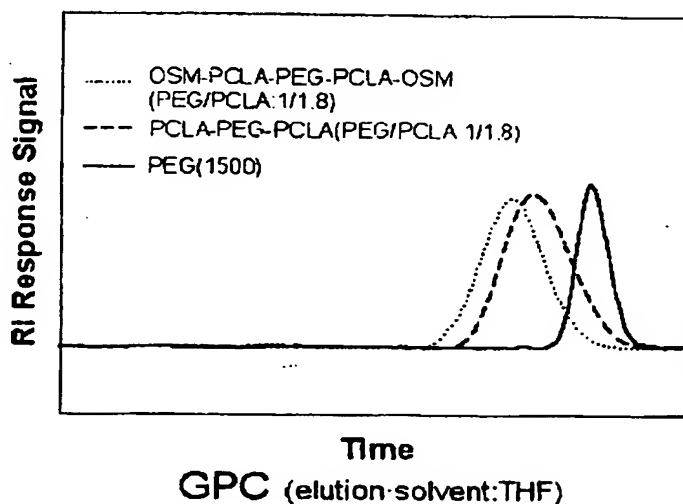
Jangan-gu, Suwon-si, Gyeonggi-do 440-746 (KR).
SHIM, Woo-Sun [KR/KR]; Sungkyunkwan University,
Cheoncheon-dong, Jangan-gu, Suwon-si, Gyeonggi-do
440-746 (KR). **BAE, You-Han** [KR/US]; University of
Utah, 421 Wakara Way, Suite 315, Salt Lake City, UT
84108 (US). **YOU, Je-Sun** [KR/KR]; Sungkyunkwan
University, Cheoncheon-dong, Jangan-gu, Suwon-si,
Gyeonggi-do 440-746 (KR). **KIM, Min-Sang** [KR/KR];
Sungkyunkwan University, Cheoncheon-dong, Jangan-gu,
Suwon-si, Gyeonggi-do 440-746 (KR). **PHU, Huynh-Dai**
[VN/KR]; Sungkyunkwan University, Cheoncheon-dong,
Jangan-gu, Suwon-si, Gyeonggi-do 440-746 (KR).

(74) Agent: **KIM, Seong-Ki**; 14F., Kukdong Building 60-1,
Chungmuro3-ka, Chung-ku, Seoul 100-705 (KR).

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(54) Title: PH AND TEMPERATURE SENSITIVE HYDROGELS



(57) Abstract: The present invention relates to a block copolymer formed by coupling the following components with each other, as well as a hydrogel composition comprising the block copolymer and a hydrogel formed from the composition: (a) a copolymer of a polyethylene glycol (PEG)-based compound with a biodegradable polymer; and (b) a sulfonamide-based oligomer. The inventive block copolymer shows the sol-gel transition behavior sensitive to changes in not only temperature but also pH. Thus, the inventive block copolymer overcomes the shortcomings of temperature-sensitive copolymers, form a more strong and stable hydrogel, and is stable in vivo. Accordingly, the inventive block copolymer can be used in various applications in the medical and drug delivery fields.

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